



<110> FUJI PHOTO FILM B.V.

<120> Oil-in-water emulsions stabilised with recombinant collagen-like material

<130> OLIJVE

<140> US09/602,45

<141> 2000-06-23

<150> EP 99202047.9

<151> 1999-06-24

<160> 25

<210> 1

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<212> DNA

<213> Artificial Sequence

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<223> HLP-PA-FW

<400> 1

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26

<210> 2

<211> 108

<212> DNA

<213> Artificial Sequence

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<223> OVL-PA-FW

<400> 2

gcgctcgaga aaagagaggc tgaagctggt ccacccggtg agccaggtaa cccaggatct 60
cctggtaacc aaggacagcc cggtaacaag ggttctccag gtaatcca 108

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<211> 110

<212> DNA

<213> Artificial Sequence

<220>

<223> OVL-PA-RV

<400> 3

tgagaacctt gtggaccgtt ggaacctggc tcaccaggtt gtccgttctg accaggttga 60
ccaggttgac cttcgtttcc tggttgacct ggattacctg gagaacctt 110

<210> 4

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> HLP-PA-RV

<400> 4

tgagaacctt gtggaccgtt ggaa 24

<210> 5

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> HLP-PB-FW

<400> 5

ttccaacggt ccacaaggtt ctca 24

<210> 6

<211> 115

<212> DNA

<213> Artificial Sequence

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<223> OVL-PB-FW

<400> 6

ttccaacggt ccacaaggtt ctcagggtaa ccctggaaag aatggtcaac ctggatcccc 60
agggttcacaa ggctctccag gtaaccaagg ttcccctggt cagccaggta accct 115

<210> 7

<211> 108

<212> DNA

<213> Artificial Sequence

<220>

<223> OVL-PB-RV

<400> 7

gcgtctgcag tacgaattct attagccacc ggctggaccc tggtttcctg gtttaccttg 60
ttcacctggg tgaccagggg tacctggctg accaggggaa ccttggtt 108

<210> 8

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> HLP-PB-RV

<400> 8

gcgtctgcag tacgaattct attagc 26

<210> 9

<211> 26

<212> DNA

<213> Artificial Sequence

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<223> HLP-PA-FW

<400> 9

gcgctcgaga aaagagaggc tgaagc 26

<210> 10

<211> 111

<212> DNA

<213> Artificial Sequence

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<223> OVL-NA-FW

<400> 10

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cctggtttgc caggatggcc aggtgtcttc ggtattcctg gttaccagg t 111

<210> 11

<211> 114

<212> DNA

<213> Artificial Sequence

<220>

<223> OVL-N1A-RV

<400> 11

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acctggccaa ccaggccagc caaggtaacc tgggtaacca ggaataccga agac 114

<210> 12

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> HLP-N1A-RV

<400> 12

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<210> 13

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> HLP-N1B-FW

<400> 13

atggcctggt tttccagggt ggcca 25

<210> 14

<211> 107

<212> DNA

<213> Artificial Sequence

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<223> OVL-N1B-FW

<400> 14

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<210> 15

<211> 108

<212> DNA

<213> Artificial Sequence

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<223> OVL-N1B-RV

<400> 15

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gtgaccaggg taacctggta atccgaacaa acctgggtaa cccaacca 108

<210> 16

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> HLP-PB-RV

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<210> 17

<211> 106

<212> DNA

<213> Artificial Sequence

<220>

<223> OVL-N2A-RV

<400> 17

catagatacc agggtaacca aatgggccca accaaccgaa aggtcctggc caacctggcc 60
aaccaggcca gccaaagtaa cctgggtaac caggaatacc gaagac 106

<210> 18

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> HLP-N2A-RV

<400> 18

catagatacc agggtaacca aatggtccca

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<210> 19

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> HLP-N2B-FW

<400> 19

tgggaccatt tggttaccct ggtatctatg

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<210> 20

<211> 116

<212> DNA

<213> Artificial Sequence

<220>

<223> OVL-N2B-FW

<400> 20

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tcttcggacc atggggtcca tacgggttcc ctggtatgcc aggtatgcct ggtatg 116

<210> 21

<211> 117

<212> DNA

<213> Artificial Sequence

<220>

<223> OVL-N2B-RV

<400> 21

gcgtctgcag tacgaattct attagccacc ggctggacca tcgtgaccgt gatgtccgtg 60

gtgaccgggc ttacccttgt ctctggcat accaggcata cctggcatac cagggaa 117

<210> 22

<211> 599

<212> PRT

<213> Artificial Sequence

<220>

<223> Protein consisting of two identical nonpolar and four polar modules;N1N1P4

<400> 22

Gly Pro Pro Gly Val Pro Gly Phe Ile Gly Phe Pro Gly Leu Pro Gly
1 5 10 15

Trp Pro Gly Val Phe Gly Ile Pro Gly Tyr Pro Gly Tyr Leu Gly Trp
20 25 30

Pro Gly Trp Pro Gly Phe Pro Gly Ile Phe Gly Tyr Pro Gly Tyr Pro
35 40 45

Gly Trp Pro Gly Phe Pro Gly Trp Pro Gly Phe Ile Gly Leu Pro Gly
50 55 60

Tyr Leu Gly Pro Trp Gly Phe Val Gly Trp Pro Gly Trp Leu Gly Tyr
65 70 75 80

Pro Gly Leu Phe Gly Leu Pro Gly Tyr Pro Gly His Glu Gly Ile Pro
85 90 95

Gly Asp His Gly Pro Ala Gly Val Pro Gly Phe Ile Gly Phe Pro Gly
100 105 110

Leu Pro Gly Trp Pro Gly Val Phe Gly Ile Pro Gly Tyr Pro Gly Tyr
115 120 125

Leu Gly Trp Pro Gly Trp Pro Gly Phe Pro Gly Ile Phe Gly Tyr Pro
130 135 140

Gly Tyr Pro Gly Trp Pro Gly Phe Pro Gly Trp Pro Gly Phe Ile Gly
145 150 155 160

Leu Pro Gly Tyr Leu Gly Pro Trp Gly Phe Val Gly Trp Pro Gly Trp
165 170 175

Leu Gly Tyr Pro Gly Leu Phe Gly Leu Pro Gly Tyr Pro Gly His Glu
180 185 190

Gly Ile Pro Gly Asp His Gly Pro Ala Gly Glu Pro Gly Asn Pro Gly
195 200 205

Ser Pro Gly Asn Gln Gly Gln Pro Gly Asn Lys Gly Ser Pro Gly Asn
210 215 220

Pro Gly Gln Pro Gly Asn Glu Gly Gln Pro Gly Gln Pro Gly Gln Asn
 225 230 235 240
 Gly Gln Pro Gly Glu Pro Gly Ser Asn Gly Pro Gln Gly Ser Gln Gly
 245 250 255
 Asn Pro Gly Lys Asn Gly Gln Pro Gly Ser Pro Gly Ser Gln Gly Ser
 260 265 270
 Pro Gly Asn Gln Gly Ser Pro Gly Gln Pro Gly Asn Pro Gly Gln Pro
 275 280 285
 Gly Glu Gln Gly Lys Pro Gly Asn Gln Gly Pro Ala Gly Glu Pro Gly
 290 295 300
 Asn Pro Gly Ser Pro Gly Asn Gln Gly Gln Pro Gly Asn Lys Gly Ser
 305 310 315 320
 Pro Gly Asn Pro Gly Gln Pro Gly Asn Glu Gly Gln Pro Gly Gln Pro
 325 330 335
 Gly Gln Asn Gly Gln Pro Gly Glu Pro Gly Ser Asn Gly Pro Gln Gly
 340 345 350
 Ser Gln Gly Asn Pro Gly Lys Asn Gly Gln Pro Gly Ser Pro Gly Ser
 355 360 365
 Gln Gly Ser Pro Gly Asn Gln Gly Ser Pro Gly Gln Pro Gly Asn Pro
 370 375 380
 Gly Gln Pro Gly Glu Gln Gly Lys Pro Gly Asn Gln Gly Pro Ala Gly
 385 390 395 400
 Glu Pro Gly Asn Pro Gly Ser Pro Gly Asn Gln Gly Gln Pro Gly Asn
 405 410 415
 Lys Gly Ser Pro Gly Asn Pro Gly Gln Pro Gly Asn Glu Gly Gln Pro
 420 425 430
 Gly Gln Pro Gly Gln Asn Gly Gln Pro Gly Glu Pro Gly Ser Asn Gly
 435 440 445
 Pro Gln Gly Ser Gln Gly Asn Pro Gly Lys Asn Gly Gln Pro Gly Ser
 450 455 460
 Pro Gly Ser Gln Gly Ser Pro Gly Asn Gln Gly Ser Pro Gly Gln Pro
 465 470 475 480
 Gly Asn Pro Gly Gln Pro Gly Glu Gln Gly Lys Pro Gly Asn Gln Gly
 485 490 495
 Pro Ala Gly Glu Pro Gly Asn Pro Gly Ser Pro Gly Asn Gln Gly Gln
 500 505 510
 Pro Gly Asn Lys Gly Ser Pro Gly Asn Pro Gly Gln Pro Gly Asn Glu
 515 520 525

Gly Gln Pro Gly Gln Pro Gly Gln Asn Gly Gln Pro Gly Glu Pro Gly
 530 535 540
 Ser Asn Gly Pro Gln Gly Ser Gln Gly Asn Pro Gly Lys Asn Gly Gln
 545 550 555 560
 Pro Gly Ser Pro Gly Ser Gln Gly Ser Pro Gly Asn Gln Gly Ser Pro
 565 570 575
 Gly Gln Pro Gly Asn Pro Gly Gln Pro Gly Glu Gln Gly Lys Pro Gly
 580 585 590
 Asn Gln Gly Pro Ala Gly Gly
 595

<210> 23

<211> 599

<212> PRT

<213> Artificial Sequence

<220>

<223> Protein consisting of two different nonpolar and four polar modules;
 N1N2P4

<400> 23

Gly Pro Pro Gly Val Pro Gly Phe Ile Gly Phe Pro Gly Leu Pro Gly
 1 5 10 15
 Trp Pro Gly Val Phe Gly Ile Pro Gly Tyr Pro Gly Tyr Leu Gly Trp
 20 25 30
 Pro Gly Trp Pro Gly Phe Pro Gly Ile Phe Gly Tyr Pro Gly Tyr Pro
 35 40 45
 Gly Trp Pro Gly Phe Pro Gly Trp Pro Gly Phe Ile Gly Leu Pro Gly
 50 55 60
 Tyr Leu Gly Pro Trp Gly Phe Val Gly Trp Pro Gly Trp Leu Gly Tyr
 65 70 75 80
 Pro Gly Leu Phe Gly Leu Pro Gly Tyr Pro Gly His Glu Gly Ile Pro
 85 90 95
 Gly Asp His Gly Pro Ala Gly Val Pro Gly Phe Ile Gly Phe Pro Gly
 100 105 110
 Leu Pro Gly Trp Pro Gly Val Phe Gly Ile Pro Gly Tyr Pro Gly Tyr
 115 120 125
 Leu Gly Trp Pro Gly Trp Pro Gly Trp Pro Gly Pro Phe Gly Trp Leu
 130 135 140

Gly	Pro	Phe	Gly	Tyr	Pro	Gly	Ile	Tyr	Gly	Trp	Pro	Gly	Phe	Leu	Gly	
145					150					155					160	
Tyr	Pro	Gly	Ile	Phe	Gly	Pro	Trp	Gly	Pro	Tyr	Gly	Phe	Pro	Gly	Met	
			165						170					175		
Pro	Gly	Met	Pro	Gly	Met	Pro	Gly	Asp	Lys	Gly	Lys	Pro	Gly	His	His	
		180						185					190			
Gly	His	His	Gly	His	Asp	Gly	Pro	Ala	Gly	Glu	Pro	Gly	Asn	Pro	Gly	
	195						200					205				
Ser	Pro	Gly	Asn	Gln	Gly	Gln	Pro	Gly	Asn	Lys	Gly	Ser	Pro	Gly	Asn	
	210					215						220				
Pro	Gly	Gln	Pro	Gly	Asn	Glu	Gly	Gln	Pro	Gly	Gln	Pro	Gly	Gln	Asn	
225					230					235					240	
Gly	Gln	Pro	Gly	Glu	Pro	Gly	Ser	Asn	Gly	Pro	Gln	Gly	Ser	Gln	Gly	
			245						250					255		
Asn	Pro	Gly	Lys	Asn	Gly	Gln	Pro	Gly	Ser	Pro	Gly	Ser	Gln	Gly	Ser	
		260						265					270			
Pro	Gly	Asn	Gln	Gly	Ser	Pro	Gly	Gln	Pro	Gly	Asn	Pro	Gly	Gln	Pro	
	275						280					285				
Gly	Glu	Gln	Gly	Lys	Pro	Gly	Asn	Gln	Gly	Pro	Ala	Gly	Glu	Pro	Gly	
	290					295					300					
Asn	Pro	Gly	Ser	Pro	Gly	Asn	Gln	Gly	Gln	Pro	Gly	Asn	Lys	Gly	Ser	
305					310					315					320	
Pro	Gly	Asn	Pro	Gly	Gln	Pro	Gly	Asn	Glu	Gly	Gln	Pro	Gly	Gln	Pro	
			325						330					335		
Gly	Gln	Asn	Gly	Gln	Pro	Gly	Glu	Pro	Gly	Ser	Asn	Gly	Pro	Gln	Gly	
		340						345					350			
Ser	Gln	Gly	Asn	Pro	Gly	Lys	Asn	Gly	Gln	Pro	Gly	Ser	Pro	Gly	Ser	
	355						360					365				
Gln	Gly	Ser	Pro	Gly	Asn	Gln	Gly	Ser	Pro	Gly	Gln	Pro	Gly	Asn	Pro	
	370					375					380					
Gly	Gln	Pro	Gly	Glu	Gln	Gly	Lys	Pro	Gly	Asn	Gln	Gly	Pro	Ala	Gly	
385					390					395					400	
Glu	Pro	Gly	Asn	Pro	Gly	Ser	Pro	Gly	Asn	Gln	Gly	Gln	Pro	Gly	Asn	
			405						410					415		
Lys	Gly	Ser	Pro	Gly	Asn	Pro	Gly	Gln	Pro	Gly	Asn	Glu	Gly	Gln	Pro	
		420						425					430			
Gly	Gln	Pro	Gly	Gln	Asn	Gly	Gln	Pro	Gly	Glu	Pro	Gly	Ser	Asn	Gly	
	435						440					445				

Pro Gln Gly Ser Gln Gly Asn Pro Gly Lys Asn Gly Gln Pro Gly Ser
 450 455 460
 Pro Gly Ser Gln Gly Ser Pro Gly Asn Gln Gly Ser Pro Gly Gln Pro
 465 470 475 480
 Gly Asn Pro Gly Gln Pro Gly Glu Gln Gly Lys Pro Gly Asn Gln Gly
 485 490 495
 Pro Ala Gly Glu Pro Gly Asn Pro Gly Ser Pro Gly Asn Gln Gly Gln
 500 505 510
 Pro Gly Asn Lys Gly Ser Pro Gly Asn Pro Gly Gln Pro Gly Asn Glu
 515 520 525
 Gly Gln Pro Gly Gln Pro Gly Gln Asn Gly Gln Pro Gly Glu Pro Gly
 530 535 540
 Ser Asn Gly Pro Gln Gly Ser Gln Gly Asn Pro Gly Lys Asn Gly Gln
 545 550 555 560
 Pro Gly Ser Pro Gly Ser Gln Gly Ser Pro Gly Asn Gln Gly Ser Pro
 565 570 575
 Gly Gln Pro Gly Asn Pro Gly Gln Pro Gly Glu Gln Gly Lys Pro Gly
 580 585 590
 Asn Gln Gly Pro Ala Gly Gly
 595

<210> 24

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> PRIMER for PCR

<400> 24

gactggttcc aattgacaag c

21

<210> 25

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> PRIMER for PCR

<400> 25

gcaaatggca ttctgacatc c

21